

Claims

[c1] What is claimed is:

An aerial delivery device capable of delivering a payload, comprising:

an overloaded ram-air drogue parachute;

a descent control system for steering said ram-air drogue parachute in connection with said drogue parachute; and

a recovery parachute.

[c2] The aerial delivery device of claim 1 wherein the descent control system includes a suspension plate.

[c3] The aerial delivery device claim of 2, wherein the suspension plate is in mechanical connection with a control box.

[c4] The aerial delivery device of claim 1 wherein said recovery parachute is contained within a recovery parachute container attached to said payload.

[c5] The aerial delivery device of claim 1 wherein said descent control system includes a link located between the payload, the drogue parachute and the recovery parachute.

- [c6] The aerial delivery device of claim 3, wherein two of said suspension plate includes drogue parachute attachment points and at least one payload suspension point spaced apart from said drogue parachute suspension point.
- [c7] The aerial delivery device of claim 6, wherein said drogue parachute is attached to drogue riser straps attached to said drogue parachute attachment points and wherein said payload is attached to payload straps attached to said payload suspension point.
- [c8] The aerial delivery device of claim 1, wherein said descent control system includes at least one servo motor.
- [c9] The aerial delivery device of claim 1, wherein said descent control system comprises a signal receiver in electronic connection with at least one servo motor.
- [c10] The aerial delivery device of claim 1, further comprising means for activating said recovery parachute.
- [c11] The aerial delivery device of claim 5, wherein said link is polygonal.
- [c12] The aerial delivery device of claim 11, wherein the link is triangular.
- [c13] The aerial delivery device of claim 12, further comprising a means for reducing the risk of tangling between the

link and the drogue parachute.

- [c14] The aerial delivery device of claim 9, wherein at least one servo motor is controlled via one or more joysticks on a remote control.
- [c15] The aerial delivery device of claim 1, wherein said payload is attached to said recovery parachute by an extraction bridle.
- [c16] The aerial delivery device of claim 7, wherein said drogue riser straps are attached to said drogue attachment points by ring release mechanisms activated by a cutter.
- [c17] The aerial delivery device of claim 9, wherein said receiver is adapted to receive signals from a remote control, and said remote receiver is adapted to direct said servo motor.
- [c18] The aerial delivery device of claim 1, wherein said aerial delivery device is interfaced with a global positioning system for autonomous navigation of said payload.
- [c19] The aerial delivery device of claim 1, further comprising a means for controlling the deployment of the drogue parachute.
- [c20] The aerial delivery device of claim 1, wherein the means for controlling includes a slider.

[c21] The aerial delivery device of claim 20, wherein the means for controlling further includes one or more brake lines.

[c22] An aerial delivery device, comprising:
a drogue parachute means for directing the descent of a payload;
a means for reducing the rate of descent to a predetermined rate at a predetermined height for a payload.